SPECIES: Scientific [common]	***Astragalus amnis-amissi* [Lost River milkvetch]**
Forest:	**Salmon–Challis National Forest**
Forest Reviewer:	**Brittni Brown; John Proctor**
Date of Review:	**7 February 2018; 24 March 2018**
Forest concurrence (or recommendation if new) for inclusion of species on list of potential SCC: (Enter Yes or No)	**YES**

FOREST REVIEW RESULTS:

1. The Forest concurs or recommends the species for inclusion on the list of potential SCC:
   Yes_X__ No___

2. Rationale for not concurring is based on (check all that apply):
   Species is not native to the plan area _____
   Species is not known to occur in the plan area _____
   Species persistence in the plan area is not of substantial concern _____

FOREST REVIEW INFORMATION:

1. Is the Species Native to the Plan Area? Yes_X_ No___

   If no, provide explanation and stop assessment.

2. Is the Species Known to Occur within the Planning Area? Yes_X_ No___

   If no, stop assessment.

Table 1. All Known Occurrences, Years, and Frequency within the Planning Area

Year Observed	Number of Individuals	Location of Observations (USFS District, Town, River, Road Intersection, HUC, etc.)	Source of Information
2002	No data	Lost River Ranger District Along the USFS Kane-Summit Trail 2.2 miles southeast of Highway 208.	Consortium of Pacific Northwest Herbaria Accession: 158920 Barcode: ID060289
1995	200	Lost River Ranger District Above radio tower east of Swauger Gulch, approximately 4.2 air miles northeast of Mackay; west slope of the Lost River Range	IDFG Element Occurrence EO Number: 13 EO_ID: 1600
1978	20-30	Lost River Ranger District Southwest end of Lemhi Range; west side of East Canyon about	IDFG Element Occurrence EO Number: 12 EO_ID: 194

Year Observed	Number of Individuals	Location of Observations (USFS District, Town, River, Road Intersection, HUC, etc.)	Source of Information
		and above 6,000 feet; base of vertical limestone cliffs and on ledges and crevices in rock	
1978	30-40	Lost River Ranger District South Lemhi Range; base of vertical cliffs along west side of Middle Canyon at approximately 6,700 feet	IDFG Element Occurrence EO Number: 11 EO_ID: 804
1984	No data	Lost River Ranger District Pass Creek Gorge, approximately 10 miles north of Leslie	IDFG Element Occurrence EO Number: 10 EO_ID: 3310
1991	30	Lost River Ranger District Elbow Canyon; approximately 11 air miles east of Mackay on the west slope of the Lost River Range; approximately 2.5 miles East of the Butte County/Custer County line	IDFG Element Occurrence EO Number: 9 EO_ID: 3436
2010	10-20	Lost River Ranger District West slope Lost River Range, lower Cedar Creek approximately 4 miles northeast of Mackay	IDFG Element Occurrence EO Number: 8 EO_ID: 674
1979	Occasional	Lost River Ranger District West slope Lost River Range, Jaggles Canyon	IDFG Element Occurrence EO Number: 7 EO_ID: 2649
1980	No data	Lost River Ranger District Mouth of Elbow Canyon (0.2 mile up canyon); approximately 11 air miles east of Mackay on the west slope of the Lost River Range	IDFG Element Occurrence EO Number: 6 EO_ID: 611
1979	Very rare	Lost River Ranger District East slope Lost River Range in vicinity of Hawley Mountain, Van Dorn Canyon approximately 3.5 miles from Deer Creek Bar, east side of canyon	IDFG Element Occurrence EO Number: 4 EO_ID: 2520
1979	Common	Lost River Ranger District East slope Lost River Range, Van Dorn Canyon	IDFG Element Occurrence EO Number: 3 EO_ID: 3267

a. Are all Species Occurrences Only Accidental or Transient?

Yes___ No_X_

If yes, document source for determination and stop assessment.

b. For species with known occurrences on the Forest since 1990, based on the number of observations and/or year of last observation, can the species be presumed to be established or becoming established in the plan area?

Yes_X_ No___

If no, provide explanation and stop assessment

c. For species with known occurrences on the Forest predating 1990, does the weight of evidence suggest the species still occurs in the plan area?

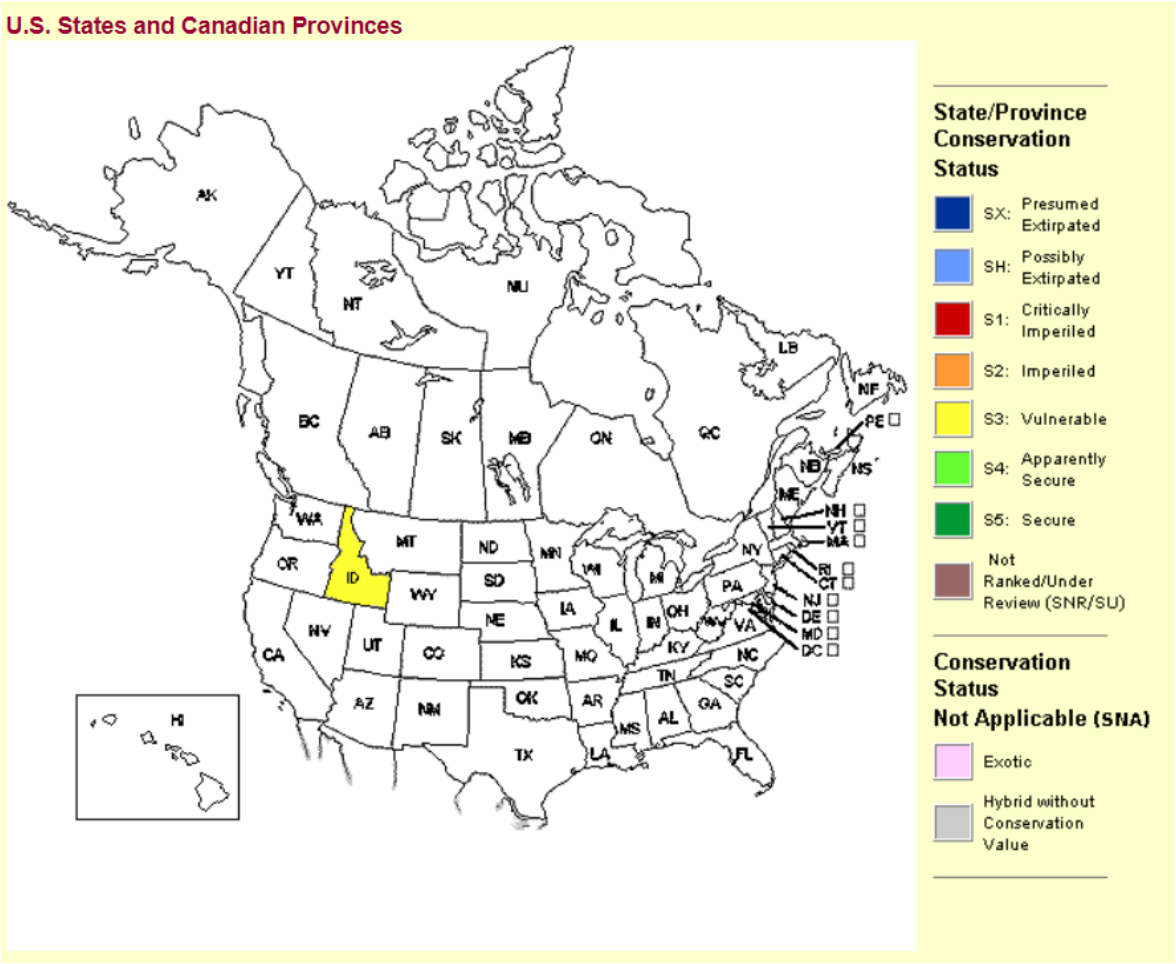
Yes___ No___

Provide explanation for determination

Not applicable. Species has known occurrences since 1990.

If determination is no, stop assessment

d. **Map 1**, Lost River milkvetch conservation status in US and Canada (NatureServe 2017)

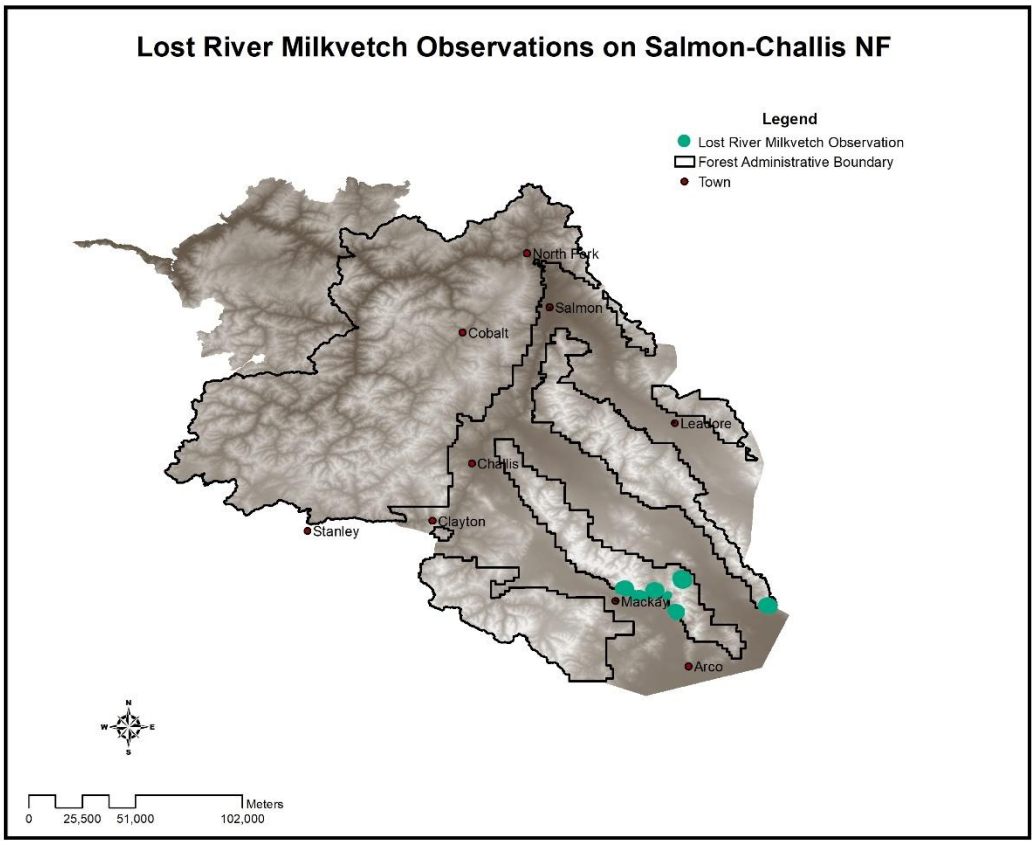


NatureServe. 2017. Conservation Species Report. *Astragalus amnis-amissi*. Internet website: http://explorer.natureserve.org. Accessed on October 9, 2017.

e. **Map 2**, Lost River milkvetch range in Idaho and surrounding states and provinces (NRCS 2017)

NRCS (United States Department of Agriculture, Natural Resources Conservation Service). 2017. Plants Profile for *Astragalus amnis-amissi*. Internet website: https://plants.usda.gov/core/profile?symbol=ASAM4. Accessed on October 10, 2017.

Map 3, Lost River milkvetch occurrences on the Salmon–Challis National Forest (IDFG. 2017. Idaho Fish and Wildlife Information System, Species Diversity Database, Idaho Natural Heritage Data. Accessed on February 27, 2017.)



3. Is There Substantial Concern for the Species' Capability to persist Over the Long-term in the Plan Area Based on Best Available Scientific Information?

Table 2. Status summary based on existing conservation assessments

Entity	Status/Rank (include definition if Other)
Global Rank	G3+ —Vulnerable (At moderate risk of extinction due to a restricted range, relatively few populations [often 80 or fewer], recent and widespread declines, or other factors)[1]
State Rank	S3—Vulnerable (Vulnerable in the state due to a restricted range, relatively few populations [often 80 or fewer], recent and widespread declines, or other factors making it vulnerable to extirpation)[1]
USDA Forest Service	Region 1: Not listed[2] Region 4: Sensitive (Challis National Forest)[3]
USDI FWS	Not listed as a candidate species[4]
Other	Idaho Native Plant Society: 2016 – on list, not yet ranked[5]; 2011 – GP3[6] BLM: Type 3—Range-wide or State-wide Imperiled—Moderate Endangerment (These are species that are globally rare or very rare in Idaho, with moderate endangerment factors; their global or state rarity and the inherent risks associated with rarity make them imperiled species)[7]

1. Idaho Natural Heritage Program. 2016. IDNHP Tracked Plant Species 2016. Accessed January 12, 2018
2. USFS Region 1. 2011. 2011 Sensitive Species List Idaho and Montana. Website: http://fsweb.r1.fs.fed.us/wildlife/wwfrp/TESnew.htm. Accessed January 10, 2017.
3. USFS Region 4. 2016. Proposed, Endangered, Threatened, and Sensitive Species List. On file. Accessed January 11, 2017.
4. USFWS. 2017. Candidate species believed to or known to occur in Idaho. Website: https://ecos.fws.gov/ecp0/reports/species-listed-by-state-report?state=ID&status=candidate. Accessed January 12, 2018.
5. Idaho Native Plant Society. 2016. INPS Rare Plant List May 2016. https://idahonativeplants.org/rare-plants-list/ Accessed January 10, 2018.
6. Idaho Native Plant Society. 2011. Results of the twenty-fifth Idaho Rare Plant Conference – The Idaho Native Plant Society rare plant list. Website: https://idahonativeplants.org/rpc/pdf/2011_Results_IRPC_v2.2.pdf. Accessed on January 11, 2018.
7. BLM. 2016. Bureau of Land Management Idaho Special Status Plants List Aug 2016. On file. Accessed 15 January, 2018.

Table 3. Status summary based on best available scientific information.

Species (Scientific and Common Name): *Astragalus amnis-amissi* (Lost River milkvetch)			
Criteria	**Rank**	**Rationale**	**Literature Citations**
1 Distribution on Salmon–Challis National Forest	A1	This species is known from eleven occurrences on the Forest. The Lost River milkvetch is endemic to Custer and Butte counties, mostly in the southern Lemhi range. Although a floristic inventory of the SCNF took place (Irwin 2014), targeted systematic surveys have not been conducted. Potential habitat (see Criterion 6) is relatively scarce on the Forest (Rank A). Confidence in this rank is high as this species is narrowly endemic to its geographic range and habitat type. Confidence in Rank: **High**, Medium, or Low	IDFG. 2017. Idaho Fish and Wildlife Information System, Species Diversity Database, Idaho Natural Heritage Data. Accessed on February 27, 2017. Irwin, J.J. 2014. A floristic inventory of east-central Idaho, USA Master's thesis, University of Wyoming. Department of Botany.
2 Distribution in surrounding geographic area	B	The Lost River milkvetch is endemic to Custer and Butte Counties in central Idaho (NatureServe 2017). Outside of the Forest, this species is known from a number of canyons of the Lost River Range in Custer County and the southern tip of the Lemhi Range in Butte County (Spahr et al 1991). It has been surveyed for in areas of likely habitat on the adjacent Targhee National Forest – Dubois Ranger District, but no populations were discovered (Mancuso and Severud 2004). The Lost River milkvetch has a limited distribution outside the Forest (Rank B). Confidence in this rank is high as there are multiple records of this species outside the Forest and all are limited to Custer or Butte Counties. Confidence in Rank: **High**, Medium, or Low	Mancuso, M. and Severud, K. 2004. Rare plant field survey on the Dubois Ranger District, and stewardship evaluation for Copper Mountain Research Natural Area, Caribou-Targhee National Forest. https://www.idfg.idaho.gov/ifwis/idnhp/cdc_pdf/u04man03.pdf. Accessed on January 2, 2018. NatureServe. 2017. Comprehensive Report Species. *Astragalus amnis-amissi.* Internet website: http://explorer.natureserve.org. Accessed on October 10, 2017. Spahr, R., L. Armstrong, D. Atwood, and M. Rath. 1991. Threatened, endangered, and sensitive species of the Intermountain Region. US Forest Service, Intermountain Region, Ogden, UT. Internet website:

Species (Scientific and Common Name): *Astragalus amnis-amissi* (Lost River milkvetch)

Criteria	Rank	Rationale	Literature Citations
			https://play.google.com/books/reader?id=VvcTAAAAYAAJ&printsec=frontcover&output=reader&hl=en&pg=GBS.PT211. Accessed on October 9, 2017.
3 Dispersal Capability	A	The seeds of *A. amnis-missi* are reported to be few and rare (Spahr et al. 1991). Erosion of the limestone cliffs supporting this species may be responsible for the dispersal of some seeds, while water, wind, birds and small ground animals may also play a role in seed movement. Specific seed dispersal mechanisms for this species have not been studied. The rocky substrate that this species occupies is likely to be only marginally productive. As such, the thin soils may offer few available nutrients to support plant growth and thus lead to sparse populations. This species appears to have a very limited dispersal ability as it is narrowly endemic to the cliffs and talus fields of Custer and Butte Counties (Rank A). Confidence in this rank is low as the specific dispersal mechanisms for this species have not been studied. Confidence in Rank: High, Medium, or **Low**	IDFG (Idaho Department of Fish and Game). 2009. Species Account. *Astragalus amnis-amissi*. Spahr, R., L. Armstrong, D. Atwood, and M. Rath. 1991. Threatened, endangered, and sensitive species of the Intermountain Region. US Forest Service, Intermountain Region, Ogden, UT. Internet website: https://play.google.com/books/reader?id=VvcTAAAAYAAJ&printsec=frontcover&output=reader&hl=en&pg=GBS.PT211. Accessed on October 9, 2017.
4 Abundance on the Salmon–Challis National Forest	A	This species is known from eleven populations consisting of an unknown total number of individuals. The population size has been recorded as being between one individual to “common” (IDFG 2017). The largest population size recorded was at EO_13 and consisted of 200 individuals (Table 1). The smallest population size was recorded as 10 to 20 individuals (Table 1). Extrapolating these population size numbers, the population on the Forest may range from approximately 110 individuals to 2,200 individuals. A review of herbarium specimens identified 17 populations in Idaho (Consortium of Pacific Northwest Herbaria 2017). Of the 17 populations, only six were identified off the Forest (Consortium of Pacific Northwest	IDFG. 2017. Idaho Fish and Wildlife Information System, Species Diversity Database, Idaho Natural Heritage Data. Accessed on February 27, 2017. Consortium of Pacific Northwest Herbaria. 2017. *Astragalus amnis-amissi*. Internet website: http://www.pnwherbaria.org. Accessed on October 11, 2017.

Species (Scientific and Common Name): *Astragalus amnis-amissi* (Lost River milkvetch)

Criteria	Rank	Rationale	Literature Citations
		Herbaria 2017). The herbarium data indicates that populations on the Forest represent the majority of all known occurrences of this species. This species is rare on the Forest and the current abundance is low enough that stochastic and other factors could lead to potential imperilment (Rank A). Confidence in this species is medium as species-specific surveys for this species have not been completed. Confidence in Rank: High, **Medium**, or Low	
5 Population Trend on the Salmon–Challis National Forest	D	There are eleven documented populations on the Forest but these populations have not been monitored consistently and no population data is available that would provide an indication as to trends in population size. Confidence in Rank: **High**, Medium, or Low	
6 Habitat Trend on the Salmon–Challis National Forest	B	*Astragalus amnis-amissi* is narrowly endemic to steep limestone cliffs, cracks, and ledges and the associated talus fields (IDFG 2009) with limited soil development. Within these habitats, plants are located mostly in moist, shaded areas (Spahr et al. 1991). Occurrences range between 5,500 and 8,000 feet, although most are between 6,400 and 7,200 feet (Mancuso and Severud 2004). Spahr et al. (1991) notes that many of these populations occur in ideal locations to prevent extirpation. Aerial imagery (between 1992 and 2014) of habitat at each EO was assessed for ground disturbing activities. In addition, an IDFG (2017) GIS database of existing grazing allotments, invasive plant populations, historical wildfires, mines, trails, and roads was reviewed. Notes from historical collections were also reviewed as they contain information on threats to habitat.	IDFG. 2017. Idaho Fish and Wildlife Information System, Species Diversity Database, Idaho Natural Heritage Data. Accessed on February 27, 2017. Mancuso, M. and Severud, K. 2004. Rare plant field survey on the Dubois Ranger District, and stewardship evaluation for Copper Mountain Research Natural Area, Caribou-Targhee National Forest. https://www.idfg.idaho.gov/ifwis/idnhp/cdc_pdf/u04man03.pdf. Accessed on January 2, 2018. Spahr, R., L. Armstrong, D. Atwood, and M. Rath. 1991. Threatened,

Species (Scientific and Common Name): *Astragalus amnis-amissi* (Lost River milkvetch)

Criteria	Rank	Rationale	Literature Citations
		No residential or agricultural development has occurred at any of the populations. No evidence of wildfires was observed at any of the populations. Several roads occur below the cliffs supporting populations of this species but the roads follow valley bottoms and do not appear to have impacted cliffs. No mining activity was observed through aerial imagery, however mining was noted within the vicinity of EO 9 on the EO record. Active grazing allotments are present at all EOs except EO 10, although evidence of grazing such as stock tanks, fences, and cattle trails was observed only at EO 6 and EO 9. In a review of this species, Spahr et al. (1991) notes that this plant is being grazed but with no apparent harm. Several populations of invasive Canada thistle (*Cirsium arvense*) and nodding plumeless thistle (*Carduus nutans*) were noted along roads within five miles of existing populations. The thistle populations did not extend outside of the areas adjacent to the roads. Cheat grass (*Bromus tectorum*) was noted as an associated species on EO 8. Given current information, habitat is likely experiencing low to moderate impacts from invasive species and low impacts from anthropogenic disturbance. Currently, there is no evidence to suggest that there is a decline in habitat quantity or quality; habitat is likely stable (Rank B). Confidence in this rank is medium as habitat for this species has not been observed directly. Confidence in Rank: High, **Medium**, or Low	endangered, and sensitive species of the Intermountain Region. US Forest Service, Intermountain Region, Ogden, UT. Internet website: https://play.google.com/books/reader?id=VvcTAAAAYAAJ&printsec=frontcover&output=reader&hl=en&pg=GBS.PT211. Accessed on October 9, 2017.
7 Vulnerability of Habitats on the	B	Within the habitat for this species, the most significant drivers would likely be unrestricted grazing, invasive species, and climate change. In a review of this species, Spahr et al. (1991) considers management	Behrens, P.N., R.E. Keane, D.L. Peterson, and J.J. Ho. 2018. Chapter 6: effects of climatic variability and change on forest vegetation. In

Species (Scientific and Common Name): *Astragalus amnis-amissi* (Lost River milkvetch)

Criteria	Rank	Rationale	Literature Citations
Salmon–Challis National Forest		implications and notes that "increased grazing at the cliff bases may jeopardize the population due to the plant's highly restricted nature." As grazing allotments overlap all plant populations except and EO 10, there is potential for cattle to occupy areas supporting populations of this species. However, Spahr et al. (1991) also notes that the position of the plants in the landscape are in ideal locations to prevent extirpation. It is likely that Spahr et al. (1991) is referring to the tendency of this species to occupy cliffs and the associated talus fields which are unlikely to be used by cattle. To project the future climate and impacts to resources in the Intermountain Region including the Salmon-Challis, the Intermountain Adaptation Partnership (IAP) used Representative Concentration Pathway [RCP] 4.5 and 8.5, which capture a moderate and high future warming, respectively (Halofsky et al. 2018). Although pathways predicting lower warming exist, the 4.5 and 8.5 pathways were chosen by the IAP because they are, in comparison, well studied providing a large set of projections that enhance our understanding of the possible range in future climate. Thus, this represents best available science for our Forest with regard to a warming climate. Although uncertainty exists about the magnitude and rate of climate change (For a discussion of this see Behrens et al. 2018), warming temperatures are the most certain consequence of increased CO2 in the atmosphere. By 2100, median minimum temperature in the Middle Rockies subregion, which includes the Salmon-Challis, is projected to rise about 5˚F under the moderate warming scenario and about 10˚F under the high warming scenario. Regardless of scenario, the greatest departure from historical seasonal minimum temperatures occurs in the summer. Annual precipitation projections are highly variable with no discernible trend under moderate warming and a slight increasing trend	Halofsky, J.E., D.L. Peterson, J.J. Ho, N.L. Little, L.A. Joyce, editors. 2018. Climate change vulnerability and adaptation in the Intermountain Region. Gen. Tech. Rep. RMRS-GTR-XXX. Fort Collins, CO: US Department of Agriculture, Forest Service, Rocky Mountain Research Station. Halofsky, J.E., D.L. Peterson, J.J. Ho, N.L. Little, L.A. Joyce, editors. 2018. Climate change vulnerability and adaptation in the Intermountain Region. Gen. Tech. Rep. RMRS-GTR-xxx. Fort Collins, CO: US Department of Agriculture, Forest Service, Rocky Mountain Research Station. Hatfield, R., Jepsen, S., Mader, E., Black, S.H., Shepherd, M. 2012. Conserving bumble bees: guidelines for creating and managing habitat for America's declining pollinators. The Xerces Society for Invertebrate Conservation. Joyce, L.A. and M. Talbert. 2018. Chapter 3: Historical and projected climate. In Halofsky, J.E., D.L. Peterson, J.J. Ho, N.L. Little, L.A. Joyce, editors. 2018. Climate change vulnerability and adaptation in the Intermountain Region. Gen. Tech. Rep. RMRS-GTR-xxx. Fort Collins, CO: US Department of

Species (Scientific and Common Name): *Astragalus amnis-amissi* (Lost River milkvetch)

Criteria	Rank	Rationale	Literature Citations
		with high warming (Joyce and Talbert 2018). Within the cliffs and talus, this species is located mostly within moist shaded areas (Spahr et al. 1991), which may be highly vulnerable to climate warming and increased water stress/drought risk. Current habitat restrictions (i.e. moist, shaded areas) suggest the species may already live at the edge of tolerable climatic conditions and may not endure warmer or drier conditions. Changes in soil moisture due to reduced snowpack, earlier snowmelt, and changes in precipitation could also drive changes in cliff-face microhabitats. Compared to the rest of the Intermountain Region, these projected impacts may be less in central Idaho and the Tetons due to greater retention of snowpack, potential increases in precipitation, and a relatively cooler future climate, comparatively (Halofsky et al. 2018). Changes in temperature and precipitation may also lead to greater variability in forb flowering, which could create an asynchronistic effect with native pollinator emergence (Halofsky et al. 2018; Miller-Struttmann et al. 2015), leading to decreased reproduction in native plants. As pollinators are critical for successful reproduction and seed set for approximately 85% of flowering species globally (Hatfield et al. 2012), this asynchronistic effect may have profound implications. Human-caused modification of habitat from grazing and climate change is likely to result in ecological patterns similar to the range of historical conditions, but is being impacted by modern stressors (Rank B). Confidence in this rank is low as the effects of grazing to the species have not been studied and the impacts to this species from climate change may be variable. Confidence in Rank: High, Medium, or **Low**	Agriculture, Forest Service, Rocky Mountain Research Station. Miller-Struttmann, N.E., Geib, J.C., Franklin, J.D., Kevan, P.G., Holdo, R.M., Ebert-May, D., Lynn, A.M., Kettenbach, J.A., Hedrick, E., Galen, C. 2015. Functional mismatch in a bumble bee pollination mutualism under climate change. Science, 349(6255): 1541-1544. Spahr, R., L. Armstrong, D. Atwood, and M. Rath. 1991. Threatened, endangered, and sensitive species of the Intermountain Region. US Forest Service, Intermountain Region, Ogden, UT. Internet website: https://play.google.com/books/reader?id=VvcTAAAAYAAJ&printsec=frontcover&output=reader&hl=en&pg=GBS.PT211. Accessed on October 9, 2017. USFS (United States Department of Agriculture Forest Service). 2017. Salmon-Challis National Forest Plan Revision Assessments. Topics 1& 2: Terrestrial Ecosystems, Aquatic Ecosystems, Watersheds, Air, Soil, Water.

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Criteria	Rank	Rationale	Literature Citations
8 Life History and Demographics	A	This species is a slender, low, weakly ascending perennial forb with a taproot and an unknown lifespan. The Lost River milkvetch flowers from late May to late August. Fruiting is rare and the plants vary greatly in the quantity of seed produced (Spahr et al. 1991). The seed dispersal mechanism for this species has not been studied but erosion may be an important factor. The demographics of this species have not been studied and *A. amnis-amissi* is known from eleven populations on the Forest. Spahr et al. (1991) notes that many individual populations exist in suitable habitats, and each has a small number of plants. The disadvantages of a small population may include reduced genetic diversity and fitness (Ellstrand and Elam 1993). Reduced genetic diversity and fitness can be a result of genetic drift and inbreeding. Genetic drift and inbreeding is most likely to occur in small (less than 100 individuals) and isolated populations (Ellstrand and Elam 1993). Also, small populations may be more vulnerable to stochastic events that may result in a local extinction. Small populations may also be less able to recover rapidly following a disturbance. The species has life history and demographic characteristics that suggest populations may not recover rapidly from disturbance events and this species may also be prone to reduced fitness from a lack of genetic diversity (Rank A). Confidence in this rank is medium as the size of populations on the Forest has not been recorded and population size would affect the ability of a population to recover from disturbance and maintain genetic diversity. Confidence in Rank: High, **Medium**, or Low	Ellstrand, N.C., and D.R. Elam. 1993. Population Genetic Consequences of Small Population Size: Implications for Plant Conservation. Annual Review of Ecology and Systematics. Vol. 24:217-242. Internet website: http://web.nateko.lu.se/courses/ngen03/Ellstrand-Elam-1993.pdf. Accessed on October 4, 2017. Spahr, R., L. Armstrong, D. Atwood, and M. Rath. 1991. Threatened, endangered, and sensitive species of the Intermountain Region. US Forest Service, Intermountain Region, Ogden, UT. Internet website: https://play.google.com/books/reader?id=VvcTAAAAYAAJ&printsec=frontcover&output=reader&hl=en&pg=GBS.PT211. Accessed on October 9, 2017.

Species (Scientific and Common Name): *Astragalus amnis-amissi* (Lost River milkvetch)

Criteria	Rank	Rationale	Literature Citations
Summary and recommendations: This species is considered vulnerable both globally and at the state level. There are eleven documented populations of *A. amnis-amissi* on the SCNF and it is endemic to Custer and Butte counties, Idaho. Population size at known records is typically small, and the species is likely susceptible to stochastic events and there may be some intrinsic threats to genetic fitness. *Astragalus amnis-amissi* is narrowly endemic to limestone cliffs and talus in moist shaded areas, a habitat type that is rare on the Forest. Population trends on the Forest have not been documented as the species has not been regularly monitored, however, habitat trends for this species are likely to be stable at present. Populations appear to prefer moist, shady areas, suggesting the species already lives at the edge of tolerable climate conditions. This indicates that it is likely particularly vulnerable to long-term climate change threats. This species likely tolerates low to moderate grazing, but may be threatened by unrestricted grazing. Additionally, invasive species pose a threat to this species; especially cheat grass, which has been documented as an associate species at some EOs. Cheat grass presence may choke out existing populations and increase the risk of severe wildfire. Canada thistle and nodding plumeless thistle have been documented in the area, but at present, are not threatening populations. There is substantial concern for the capability of *Astragalus amnis-amissi* to persist over the long-term on the Salmon-Challis, therefore, it is recommended as a SCC. Evaluator(s): Dan Morta			Date: 10/11/2017